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Attitudes Toward Fertility and Reproductive Health among Transgender and Gender-nonconforming Adolescents

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Abstract

Purpose—Little is known about the reproductive desires of transgender and gender-nonconforming (TGNC) adolescents who may seek gender-affirming medical care that leads to infertility. The current study addressed this gap by examining attitudes toward fertility and family formation in a diverse sample of TGNC youth.

Method—An online survey about sexual/reproductive health in sexual and gender minority (SGM) adolescents ages 14–17 years was conducted from September–October 2016.

Results—156 TGNC adolescents (M_{age} = 16.1 years; 83.3% assigned female at birth; 58.3% youth of color) responded. Overall, 70.5% were interested in adoption and 35.9% in biological

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parenthood; more gender-nonconforming youth (43.8%) than transgender youth (25.8%) expressed interest in biological fertility. Discussions with healthcare providers about fertility and reproductive health were uncommon—only 20.5% had discussed fertility in general and only 13.5% had discussed effects of hormones on fertility. However, 60.9% of respondents were interested in learning more about their fertility and family building options. Key themes emerging from qualitative comments included concerns related to fertility/reproductive health (e.g., stigma of SGM parenthood; effect of gender-affirming treatments on fertility), and the need for additional reproductive health information both tailored to their individual experience and for SGM individuals more generally.

Discussion—TGNC adolescents expressed interest in multiple family building options, including adoption and biological parenthood, and identified a need for more information about these options. Thus, clinicians working with adolescents should be aware of the unique fertility and reproductive health needs of TGNC youth.

Keywords

transgender; gender-nonconforming; adolescents; fertility; family formation; family building; reproductive health

Many transgender and gender-nonconforming (TGNC) individuals seek interventions to align their bodies with their gender identity.[1] Gender-affirming hormones (GAH)—testosterone for females assigned at birth (FAAB) and estrogen for males assigned at birth (MAAB)—are indicated to treat gender dysphoria;[2] however, long-term exposure may negatively impact fertility and reproductive functioning.[3–5] Thus, clinical guidelines established by the World Professional Association of Transgender Health, Endocrine Society, and American Society of Reproductive Medicine all recommend counseling regarding fertility and reproductive options prior to medical treatment.[2,6,7]

As a growing body of research suggests that transgender adults desire biological children,[8–11] an increasing number are being referred for fertility preservation (FP).[12] However, little is known about the fertility and family formation desires of a growing population of TGNC youth initiating GAH during adolescence.[13–15] Two recent studies reported low FP utilization rates among transgender adolescents pursuing GAH. Despite counseling regarding the risks of hormones on fertility and referral to fertility clinics, less than 5% chose to pursue FP.[16,17] Some barriers to FP identified by transgender adolescents (e.g., cost) are universally reported by other patient populations facing fertility-compromising treatments,[18] however, some appear unique to TGNC youth. For instance, transgender youth identified physical discomfort with FP procedures as barriers, including masturbating for a semen sample[17] and invasiveness of an oocyte harvesting cycle.[16] Additionally, one participant in each study (N=105[16] and 78[17]) cited concern that pursuing FP would delay hormone initiation.

Nahata and colleagues found that almost a quarter of their sample of 78 TGNC youth "never wanted to have children" and almost half planned to adopt.[17] These findings differ from adult research suggesting that about half of transgender men[8] and transgender women[9] desire biological children. Research on cisgender teen girls also suggests strong desires for

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biological parenthood.[19] The limited research on TGNC youth's fertility and family formation desires focuses exclusively on youth with gender dysphoria presenting for GAH. Thus, it remains unclear whether reported findings on fertility and family formation desires in this population reflect true differences in attitudes and values about fertility and parenthood among TGNC youth versus their cisgender counterparts, or whether findings are potentially confounded by youth prioritizing transition-related needs. To address this gap, the current mixed-methods study examined attitudes toward fertility and family formation in a diverse, online-recruited sample of TGNC adolescents who were not explicitly seeking transition-related medical care.

Method

Participants and recruitment

As part of a larger study,[20–22] participants were recruited for an online survey on adolescent sexual health and HIV prevention research with the following eligibility criteria: ages 14–17; identifies as a sexual minority and/or TGNC; romantically/sexually interested in cisgender males; lives in the United States (US); 8th grade English reading level; and HIV-negative or naïve to HIV testing. The analytic sample for this study consisted of participants who identified as TGNC. All procedures were approved by the Northwestern University and Fordham University Institutional Review Boards. A waiver of parental permission was granted and a Certificate of Confidentiality was issued from the National Institutes of Health.

Participants were recruited through paid advertisements on Facebook from September-October 2016, which targeted adolescents in the US who were romantically interested in people of the same or both genders and/or listed interests relevant to sexual and gender minority (SGM) youth. Clicking on advertisements linked to an online eligibility survey. Eligible participants were presented with an online consent form, then automatically directed to the survey after agreeing to participate. Participants whose data passed the study's validation protocol received a $30 electronic Visa gift card.

Measures

Demographics, sexual orientation, and gender identity—Participants completed items assessing age, state of residence, race and ethnicity, assigned sex at birth, gender identity and sexual orientation, and disclosure of sexual orientation and gender identity to parents. Responses to a closed-ended item assessing gender identity were dichotomized into transgender (woman, man, transgender man, transgender woman) and GNC (genderqueer, gender-nonconforming) groups for comparison. For analyses, race and ethnicity were combined into one variable reflecting two groups: White non-Hispanic/Latino youth and youth of color (e.g., Hispanic/Latino, Black or African American, Asian, Multiracial/Other).

Healthcare experiences—The larger survey included items examining SGM youth's experiences with affirming healthcare. Only items specific to TGNC youth and fertility were included in the present analysis. Yes/no questions assessed whether participants had ever

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received pubertal suppression treatment or GAH and whether participants had ever discussed these therapies with a healthcare provider.

Fertility and family formation—Fifteen items (13 closed-ended; 2 open-ended) assessed participants' thoughts about fertility/biological parenthood and family formation (the former defined as using their own eggs or sperm to have children), including the degree to which they have discussed fertility and family formation with others and comfort having these discussions, and preferred methods of obtaining information about fertility and family formation. Open-ended questions specifically asked respondents to describe reasons for discomfort discussing fertility and any other thoughts they may have about fertility and family formation.

Data analysis

Descriptive statistics were computed for all relevant variables. Pearson Chi-Square tests were used to assess sociodemographic group differences (i.e., age, race/ethnicity, assigned sex at birth, gender identity) in participants' thoughts about and discussion of fertility and family formation; Fisher's exact test is reported when expected cell counts were less than five. Qualitative data were imported into Dedoose, an Internet-based qualitative data analysis package, and were analyzed thematically.[23] Two root codes reflecting each open-ended item were applied to each transcript: *Other thoughts about fertility and family formation* and *Reasons for discomfort with answering questions about fertility and family formation.* Next, open coding was performed to identify themes within responses to each open-ended item. Codes were created based on whether themes emerged as a meaningful pattern in the data and/or emerged frequently. Themes were not required to emerge from a minimum number of participants to be considered meaningful. One coder (second author) reviewed excerpts, generated a list of potential themes and noted any significant patterns of topics in the data. A second coder (first author) then reviewed and identified additional emergent themes. These codes were refined via comparison, discussion and consensus. The codes were applied to the excerpts, and coders continued to iteratively refine codes and definitions. An auditor (third author) reviewed the final codes, then the second coder performed reliability testing on a subset of the excerpts. The pooled kappas were 0.94 for other thoughts about fertility and family formation codes (25 excerpts) and 1.00 for reasons for discomfort with answering questions about fertility and family formation codes (6 excerpts), indicating excellent inter-coder reliability.[24]

Results

Sample characteristics

The analytic sample included 156 participants (M_{age}=16.1 years, SD=0.97) drawn from 42 of the 50 states, and 58.3% identified as youth of color. Few participants had received puberty blocking treatment (n=3) or GAH (n=6). See Table 1 for additional details.

Fertility and family formation quantitative items

Table 2 displays responses to closed-ended items assessing thoughts about fertility and family formation. Almost half of the participants indicated interest in having children

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someday. More participants expressed interest in adoption (70.5%) than biological parenthood (35.9%), with a significantly greater proportion of FAAB participants (74.4%) expressing interest in adoption than MAAB participants (53.8%), $\chi^2 = 4.445$, $p < 0.05$. FAAB participants (77.5%) also thought about having children through adoption more frequently than MAAB participants (53.8%), $\chi^2 = 6.233$, $p < 0.05$. More GNC youth (43.8%) expressed interest in biological parenthood than transgender youth (25.8%), $\chi^2 = 5.358$, $p < 0.05$. In addition, a significantly greater proportion of youth of color (42.2%) expressed interest in biological parenthood than White non-Hispanic/Latino youth (26.6%), $\chi^2 = 3.995$, $p < 0.05$.

Figure 1 shows participants' preferences for obtaining information about fertility and family formation options. Although 60.9% were interested in learning more about their options, most had "never" discussed fertility or family formation with a healthcare provider (79.5%), parent/guardian (64.7%), or SGM peer (50%). Only 13.5% of participants indicated a healthcare provider discussed how GAH can affect fertility. Among the 19.2% of our sample who had spoken to a healthcare provider about GAH, only 53.3% reported their healthcare provider discussed the impact of hormones on fertility. Fisher's exact test revealed a significantly greater proportion of participants who were out to their parents (17.1%) discussed how GAH can affect fertility with their healthcare provider than participants who were not out (0.0%; $p < 0.05$). There were no other sociodemographic differences in responses to the closed-ended items.

Thoughts about fertility and family formation

Table 3 summarizes the qualitative codes, definitions, and frequency of code application. A total of 80 participants responded to the open-ended item on thoughts about fertility and family formation. A subset (n=17) reported they had nothing else to say and for several participants, comments were too vague to be coded (n=3).

Interest in fertility and having children—Participants varied in their expressed interest in having children, with some indicating *no interest* (n=14) and others (n=9) referencing *uncertainty* about their desires for parenthood. In addition, three participants who expressed no interest in having children discussed social norms and expectations surrounding biological parenthood. For instance, a 17-year-old gender-nonconforming FAAB participant said, "I don't want to have children, I wish my doctor didn't talk to me assuming that I do. It's misogynistic to do so, I have no 'maternal instinct' and women, gay, straight or otherwise, shouldn't be made to justify that." Participants also discussed interest in specific family formation options such as *adoption* (n=13) or *biological parenthood* (n=9). Among youth providing reasons for interest in adoption, five commented that pregnancy was undesired as it could exacerbate gender dysphoria and two wanted to "save one of the kids from orphanages" and "give them a chance." Many noted they were currently unsure whether they wanted to have children in the future, but several indicated they would adopt if they changed their mind. Two excerpts referenced interest in both adoption and biological parenthood as potential family formation options. For example, one 17-year-old gender-nonconforming FAAB participant said, "I'd like to have a mix of my own children and adopted children."

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Concerns—The most frequently cited concern related to fertility and family formation was *stigma toward SGM parenting* (n=7). One 15-year-old transgender girl described how she and her partner had contemplated how stigma associated with biological parenthood may be a barrier to family formation: "My partner and I have discussed and are unsure about having children in the future. We both have concerns about the implications of pregnancy that go with our gender identities." Additionally, a 16-year-old transgender man shared concern that knowledge of his gender identity might negatively impact his chances of parenthood: "I've always wanted to adopt. I'm just scared that if I'm transgender and people notice they won't let me adopt a child."

Participants (*n=6*) also expressed concerns regarding the *effect of GAH* on fertility. Within this axial code, participants who had not spoken with a healthcare provider about medical interventions referenced desires for GAH but worried about whether treatment might impact fertility. On the other hand, participants who had discussed medical interventions with a provider demonstrated awareness of GAH effects on fertility and the need to consider this potential impact. Two of these responses explicitly referenced a desire to have biological children. For example, a 17-year-old transgender man said, "I've wanted to transition but I've also wanted to carry my own child." Another 15-year-old transgender man described concerns about the cost of assisted reproductive technologies in relation to his desire to have a biological child: "I would like to be able to have a kid using my eggs (no giving birth), but because it is too expensive, I might end up starting HRT before I can freeze them. It makes me very sad but I will deal with it."

Some concerns related to *gender dysphoria or discomfort* emerged (*n*=6), whereby participants expressed personal discomfort with, no desire for, or an aversion to pregnancy, giving birth to a child, or using ones' own eggs or sperm to create biological children due to their gender identity. For example, a 16-year-old transgender man explicitly described feelings of gender dysphoria in response to the idea of giving birth to a child saying, "I will never have a child come out of my own body … it'd give me horrible dysphoria and I don't want to do it." Another 16-year-old transgender man shared, "I want to have kids in the future, I really want to be a father one day. I absolutely refuse to carry a child of my own or use my eggs in anyway."

Finally, youth had several *general concerns about pregnancy and parenting* (*n*=13) that were not explicitly related to one's gender identity. For example, youth expressed concerns about the prospect of discomfort or pain during pregnancy and childbirth, worries about being able to financially support children, and concerns about fertility related to pre-existing health conditions (e.g., endometriosis).

Need for additional information—Several excerpts indicated that participants *need more information* (*n*=18) about fertility or family formation. Comments included questions pertaining to fertility and family formation (e.g., "If I'm trans, and my partner is trans, can we have children?" –17-year-old transgender man) and identified topics SGM youth should be exposed to through discussion, education, or research (e.g., "I feel that for transgender people starting HRT at a younger age, egg/sperm harvesting and saving should be more encouraged" –17-year-old transgender man). One participant who had spoken to a healthcare

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provider about GAH commented on a need for more research examining the impact of GAH on fertility. Other comments reflected a lack of knowledge or suggested misunderstanding of reproductive biology (e.g., "I'm really interested in bone marrow to have a baby, but I'm scared it's painful and expensive and has risks" – 17-year-old gender-nonconforming FAAB participant), pointing to a need for increased education about fertility and family formation, particularly among those who had not spoken to a healthcare provider about medical treatment.

Reasons for discomfort with answering questions about fertility

The vast majority of participants were comfortable answering questions about fertility. Only 16.0% expressed discomfort. A significantly larger proportion of Hispanic/Latino participants (25.0%) felt uncomfortable answering questions about fertility than non-Hispanic/Latino participants (12.0%), χ^2 (2, N = 155) = 9.269, $p < 0.05$. Of those who were uncomfortable answering fertility-related questions, 17 participants provided codeable responses describing reasons for discomfort. The majority of responses (n=10) reflected general discomfort with answering questions about fertility (e.g., "It's very invasive" –16-year-old transgender man). Three referenced gender dysphoria as a reason for discomfort; however, a 15-year-old transgender man also acknowledged the importance of doing research with SGM youth on these topics: "I get dysphoric answering questions in regards to fertility because it emphasizes the part of being born with a girl's body that I hate addressing. However, I don't think that this should stop you from answering these questions because they are important when understanding how LGBTQ teens' sexual health is." Other infrequently endorsed reasons for discomfort reflected similar themes from the open-ended question on participants' other thoughts about fertility and having children (e.g., uncertainty about having children, social norms surrounding biological parenthood, stigma of SGM parenthood, and concerns about the effect of pre-existing health conditions on fertility).

Discussion

Historically, TGNC people seeking gender-affirming medical interventions accepted the loss of biological fertility as the "price to pay" for transition.[25] Recent advances in FP and assisted reproductive technologies now provide TGNC people the option of biological parenthood.[26,27] While FP in TGNC youth has been documented in case studies,[28] utilization rates are low.[16,17] Studies of TGNC youth seeking medical treatment identified barriers to FP, including hypothesized differences between transgender and cisgender youth regarding family formation desires.[17] However, this is the first study, to our knowledge, that explores attitudes toward fertility and family formation in a diverse, online-recruited sample of TGNC adolescents who may not necessarily desire medical transition.

Overall, findings suggest variability among TGNC adolescents regarding attitudes toward fertility and desires for parenthood. About half of our sample expressed a desire to parent in the future, just over a quarter were not interested in parenting, and the remainder was uncertain about parenthood. Our findings on parenting desires are relatively consistent with a recent report by Strang and colleagues[29] which found that slightly more than half of their sample of transgender adolescents wished to have children and almost one-third expressing

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uncertainly about future parenthood. Moreover, it is notable that a similar percentage of our sample was not interested in parenting compared to a previous study of transgender adolescents presenting for medical intervention[17] because it is uncommon for cisgender adolescents to explicitly report no interest in having children someday.[17] In fact, research on cisgender teen girls suggest strong desires for biological parenthood even during adolescence.[19] Thus, our study provides further evidence for possible differences in parenthood desires between TGNC and cisgender youth.

Despite variability with regard to fertility and parenthood desires, over one-third of our sample wanted biological children, with more GNC youth (43.8%) than transgender youth (25.8%) expressing interest in biological fertility. While this is not surprising given that transgender youth are more likely to experience gender and body dysphoria than GNC youth, it does bring up an important point regarding clinical care. Discussions about fertility and reproductive options by pediatric and adolescent providers are grossly lacking,[30] and when discussions do occur with TGNC youth, it is most likely in the context of informed consent for fertility-compromising transition-related treatments. Because GNC youth are less likely than transgender youth to seek GAH, they may have fewer opportunities to discuss parenthood options with healthcare providers. Therefore, primary care practitioners also need to be prepared to have discussions about reproductive health with TGNC youth.

While many youth-identified concerns impacting their family formation desires overlapped with those previously identified as barriers to FP (e.g., unwilling to delay hormone treatment, gender dysphoria),[16,17] the most commonly cited concern was stigma related to SGM parenting. Several participants cited societal perceptions of SGM individuals being “bad parents” potentially impacting their ability to adopt or maintain custody of children. One youth expressed concern about the stigma a future child would face having a transgender parent as impacting their desires for parenthood. Thus, not only are TGNC youth’s fertility and parenting desires impacted by internal factors such as gender dysphoria and desires for medical transition, minority stress[31] also appears to be playing a role in TGNC youth’s desires (or lack thereof) for parenthood.

The majority of our sample expressed interest in learning more about options for family formation with over half expressing preference for online sources. Thus, there is a need to develop and disseminate reputable information about fertility and family formation options so that TGNC youth may access accurate information. Additionally, almost half our participants expressed preference for information about fertility and reproductive health to be delivered by a healthcare provider. This is particularly notable because fertility and family formation was almost never discussed with healthcare providers, and deficits in knowledge about fertility and family formation options were identified and explicit need for more information expressed by our study participants. Indeed, about half of the youth who were considering medical transition did not have all the information necessary to provide informed consent. Thus, identifying and addressing barriers to counseling on fertility and reproductive options is necessary to improve knowledge in this population. It may be helpful for providers to know that the vast majority of youth (84%) were not uncomfortable answering questions about fertility. Moreover, among youth expressing discomfort, it was noted that discomfort should not prevent fertility-related questions from being asked as they

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are important for understanding SGM sexual and reproductive health needs. Providers may find the newly validated Transgender Youth Fertility Attitudes Questionnaire helpful in facilitating these discussions.[29]

This study has several strengths. First, it extends what is known about fertility and family formation desires among transgender youth to: (1) GNC/non-binary adolescents, and (2) TGNC youth who are not explicitly seeking transition-related medical care. Second, our online recruitment strategy yielded a sample of TGNC adolescents with geographic diversity thus expanding generalizability of findings. Last, utilizing a mixed-methods approach enriched our understanding TGNC youth's attitudes toward fertility and family formation. There are also limitations to acknowledge. First, youth were recruited for a larger study on HIV risk; eligibility criteria included romantic/sexual interest in cisgender male partners. Therefore, findings may not generalize to TGNC youth who are romantically/sexually attracted to cisgender women. Also, our sample included very few MAAB youth, which may further limit generalizability. Additionally, qualitative data were provided by only half of the analytic sample and in response to open-ended online survey questions. Thus, future research on attitudes toward fertility and family formation desires should incorporate key informant interviews or focus groups that would allow for probing to elicit more nuanced data. Direct comparison with an age- and gender-matched cisgender control group also would expand understanding.

In conclusion, TGNC adolescents varied in their desires for parenthood, expressed interest in multiple family formation options, and identified a need for more information about their options. It is imperative that clinicians working with adolescents are aware of the unique fertility and reproductive health needs of TGNC youth.

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Abbreviations

TGNC	transgender and gender-nonconforming
GAH	gender-affirming hormones
FAAB	female assigned at birth
FAAB	male assigned at birth
FP	fertility preservation
SGM	sexual and gender minority
LGBTQ	lesbian, gay, bisexual, transgender, queer

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HRT hormone replacement therapy (previous terminology referencing gender-affirming hormones)

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Implications and Contribution

TGNC adolescents expressed interest in multiple family formation options, including adoption and biological parenthood, and identified a need for more information about their options. Healthcare providers working with adolescents need to be aware of the unique fertility and reproductive health counseling needs of TGNC youth.

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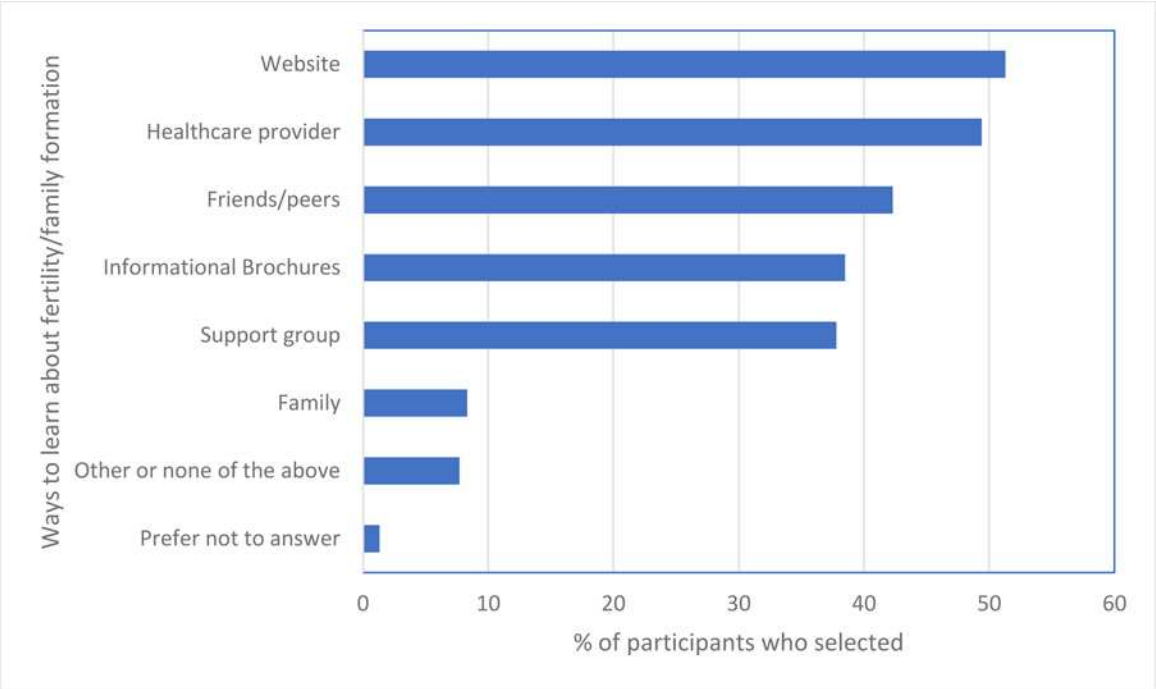

Figure 1. Preferences for methods of learning about fertility and family formation options

Notes: Percentages add up to over 100, as participants could check all that apply. Participants who selected "Other" as a response option were asked an open-ended follow-up question to specify other ways they would like to learn about future fertility options and the different ways that SGM people choose to have children. Responses to the follow-up question about other ways to learn more mentioned school (n=3), websites (n=1), activities (n=1), from a partner (n=1), or indicated a general misunderstanding of the question (n=1).

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Table 1

Sample characteristics (*N*=156)

	n **(%)**
Age group	
Older (16–17)	114 (73.1)
Younger (14–15)	42 (26.9)
Birth-assigned sex	
Male	26 (16.7)
Female	130 (83.3)
Gender identity	
Man	3 (1.9)
Woman	1 (0.6)
Transgender Man	54 (34.6)
Transgender Women	8 (5.1)
Genderqueer/gender-nonconforming	90 (57.7)
Race	
White	84 (53.8)
Black or African American	11 (7.1)
Asian	10 (6.4)
Multiracial/Other	49 (31.4)
Prefer not to answer	2 (1.3)
Ethnicity	
Hispanic/Latino	40 (25.6)
Not Hispanic/Latino	115 (73.7)
Prefer not to answer	1 (0.6)
Sexual orientation	
Gay/Lesbian	33 (21.2)
Bisexual	39 (25.0)
Pansexual	42 (26.9)
Queer	17 (10.9)
Questioning/Unsure	7 (4.5)
Other	17 (10.9)
Prefer not to answer	1 (0.6)
Outness	
Not out	30 (19.2)
Out	125 (80.2)
Prefer not to answer	1 (0.6)
Hormonal therapies - discussion with provider[1]	
Pubertal suppression	16 (10.3)
Gender-affirming hormones	30 (19.2)
Hormonal therapies – utilization	
Pubertal suppression[2]	3 (1.9)

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	n (%)
Gender-affirming hormones[3]	6 (3.8)

Notes:

[1]Items listed were response options on a "check all that apply" question, percentages represent the number of participants who selected the checkbox for that item out of the entire study sample, so total may not equal 100%.

[2–3]Utilization of each type of hormonal therapy listed were assessed in two separate questions, percentages represent the number of people out of the entire study sample who selected "yes" to each question, so total may not equal 100%.

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Table 2

Survey responses to fertility and family formation questions ($N = 156$)

	n (%)
Interest in having children someday	
No	43 (27.6)
Yes	76 (48.7)
Don't Know/Unsure	37 (23.7)
Frequency of thinking about having children someday	
Never	24 (15.4)
Rarely	38 (24.4)
Sometimes	60 (38.5)
Often	27 (17.3)
Always	7 (4.5)
Interest in having biological children	
No	58 (37.2)
Yes	56 (35.9)
Don't Know/Unsure	41 (26.3)
Prefer not to answer	1 (0.6)
Frequency of thinking about having biological children someday	
Never	55 (35.3)
Rarely	40 (25.6)
Sometimes	35 (22.4)
Often	19 (12.2)
Always	6 (3.8)
Prefer not to answer	1 (0.6)
Interest in Adoption	
No	11 (7.1)
Yes	110 (70.5)
Don't Know/Unsure	34 (21.8)
Prefer not to answer	1 (0.6)
Frequency of thinking about having children through adoption someday	
Never	16 (10.3)
Rarely	25 (16.0)
Sometimes	60 (38.5)
Often	46 (29.5)
Always	8 (5.1)
Prefer not to answer	1 (0.6)
Frequency of discussing fertility with healthcare provider	
Never	124 (79.5)
Rarely	19 (12.2)
Sometimes	11 (7.1)
Often	1 (0.6)

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	n (%)
Always	1 (0.6)
Frequency of discussing fertility with SGM peers	
Never	78 (50.0)
Rarely	29 (18.6)
Sometimes	35 (22.4)
Often	14 (9.0)
Always	0 (0.0)
Frequency of discussing fertility with parent/guardian	
Never	101 (64.7)
Rarely	40 (25.6)
Sometimes	12 (7.7)
Often	1 (0.6)
Always	2 (1.3)
Healthcare provider has discussed how gender-affirming hormone treatments can affect fertility	
No	129 (82.7)
Yes	21 (13.5)
Don't Know/Unsure	4 (2.6)
Prefer not to answer	2 (1.3)
Interest in learning more about SGM fertility options	
No	39 (25.0)
Yes	95 (60.9)
Don't Know/Unsure	22 (14.1)
Comfort answering questions about fertility	
Very uncomfortable	7 (4.5)
Somewhat uncomfortable	18 (11.5)
Neither uncomfortable nor comfortable	45 (28.8)
Somewhat comfortable	31 (19.9)
Very comfortable	55 (35.3)

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Table 3

Codes, definitions, and exemplar quotes: Other thoughts about fertility and having children

Code	Axial Code	Definition	Example
Interest in fertility and having children (*n* = 36)	No interest (*n* = 14)	Comments describe no interest in fertility or having children	"I just don't want to have children" – 15-year-old gender-nonconforming MAAB participant, out
	Adoption (*n* = 13)	Comments describe an interest in or indicate consideration of adoption or fostering children as a family building option.	"I want to adopt older foster kids, give them a chance, try and help them" – 16-year-old transgender man, out
	Biological parenthood (*n* = 9)	Comments describe an interest in or indicate consideration of using ones' own sperm or eggs to have children	"If I were to have children … I would want them to have my genetic makeup" – 15-year-old genderqueer FAAB participant, out
	Uncertainty (*n* = 9)	Comments describe feeling unsure or reconsidering whether one does or does not want to have children.	"I'm a little torn about if I should adopt or not, but I don't even know if I want kids though" - 15-year-old gender-nonconforming FAAB participant, out
Concerns (*n* = 29)	Stigma of SGM parenthood (*n* = 7)	Comments describe concerns about stigma toward SGM parenting, fertility, and having children	"It's harder for the LBGTQA+ community to have kids because there's a large stigma about us being bad parents so it's less likely to see a couple with kids it seems." – 17-year-old gender-nonconforming FAAB participant, out
	Gender affirming treatments (*n* = 6)	Comments describe concerns about the effect of gender-affirming hormones or surgery on ones' fertility and ability to have biological children. Does not include references to a need for more information or questions about the effect of gender affirming treatments on fertility.	"I want to go through estrogen therapy as soon as I am able to do it on my own, and I'm worried about how it will effect my fertility" – 17-year-old genderqueer MAAB participant, not out
	Gender dysphoria or discomfort (*n* = 6)	Comments express personal discomfort with, no desire for, or aversion to pregnancy, giving birth to a child, or using ones' own gamete material (i.e., eggs or sperm) to create biological children due to their gender identity.	"I do not want to have kids mainly because I am trans and it would be an awful and humiliating experience for me to be 'the man that gave birth" – 17-year-old transgender man, not out
	General concerns about pregnancy and parenting (*n* = 13)	Comments describe general concerns about parenting and pregnancy that do not include any explicit references to ones' gender identity and relate to fears about prospective pain or discomfort from pregnancy or childbirth, supporting and raising children, or ones' ability to get pregnant due to a pre-existing health condition that impacts fertility (e.g., PCOS or endometriosis).	"I'm afraid of being incapable to support children financially and physically. They require a lot of care and I want to provide the best for them, but I'm afraid I won't be able to do that." – 17-year-old genderqueer FAAB participant, not out
Need for additional information (*n* = 18)		Comments describe questions related to fertility and family building options, as well as recommendations or thoughts about a general need for more information or education on topics related to fertility and family building options in the community or for SGM teens.	"I have received little to no information about fertility for people who are transitioning from one gender to another." - 17-year-old gender-nonconforming FAAB participant, out